















MAP LEGEND

	Buffer Area
	Property Line (100ft Buffer)
	North Symbol
	Surface Water
	Field Boundary
rck	Rock Outcrop (25ft Buffer)
	Severe Slope/Erosion
	Sink Hole (100ft Buffer)
	Intermittent Stream (100ft Buffer)
	Occupied Dwelling/Structures/Well (200ft Buffer)
	Frequently Flooded Area/Drainage Way/Wet Spot
	Public Roadway (10ft Buffer)
	Road Map Hauling Route
	OSR/Public Access Sites (400ft Buffer)
	Public Water Supply/Additional Water Well (100ft Buffer)

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 11/1/2014 between Helen C Dardis referred to here as "Landowner", and Nutri-Blend Inc, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Cumtberland Co. Cartersville, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

o receive biosolids, water treatment		
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
017-A-5E (10 AC)	017-A-5D (9.09 AC)	
017-A-5A (3 AC)	017-A-5F (24 AC)	
017-A-5G (21 AC)	017-A-5E1 (2 AC)	
017-A-5C (8.39 AC)		
017-A-5B (3.66 AC)		

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☒ The Landowner is the sole owner of the properties identified herein.
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

<u>Helen "Connie" Dardis</u>	<u>HC Dardis</u>	<u>64 Great Oak Rd Cartersville VA</u>
Landowner - Printed Name, Title	Signature	Mailing Address

23027

Phone Number 804-241-8373

Permittee:

Nutri-Blend Inc, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

<u>A. Wayne Watkins</u>	<u>A. Wayne Watkins</u>	<u>P.O. Box 38060</u>
Permittee - Authorized Representative	Signature	Mailing Address
Printed Name		<u>Richmond, Va. 23291</u>

Permittee: Nutri Blend Inc
Landowner: Helen Connie Dardis

County or City: Cumberland Co

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.

2. Public Access

a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.

b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;

c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.

3. Crop Restrictions:

a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.

b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,

c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.

d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;

e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).

4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

a. Meat producing livestock shall not be grazed for 30 days,

b. Lactating dairy animals shall not be grazed for a minimum of 60 days.

c. Other animals shall be restricted from grazing for 30 days;

5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;

6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Landowner's Signature

Date

Helen Connie Dardis

11/1/2014

Landowner's Signature

Date

NutriBlend

BIOSOLIDS LAND APPLICATION

Dardis
T-2429



NutriBlend

BIOSOLIDS LAND APPLICATION

Dardis
T-2429
66.8 Acres

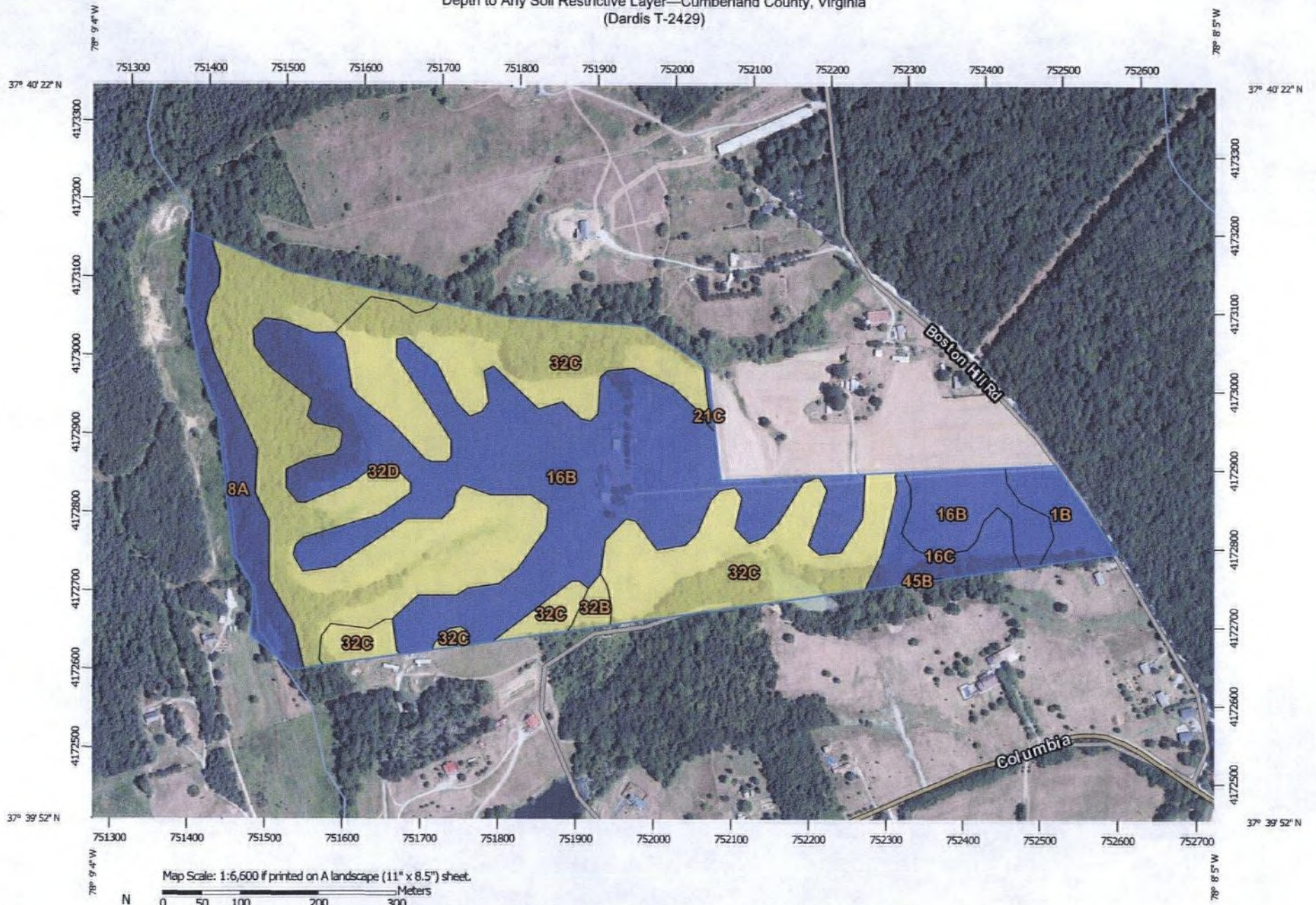


- Buffer Area
- Field Boundary
- Intermittent Stream
- Occupied Dwelling/Structures
- Public Roadway
- Property Line
- Surface Water

690

2302 ft

Depth to Any Soil Restrictive Layer—Cumberland County, Virginia
(Dardis T-2429)



Map Scale: 1:6,600 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 300 600 1200 1800 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

10/26/2011
Page

MAP LEGEND

Area of Interest (AOI)	 Area of Interest (AOI)	 Not rated or not available
Soils		Water Features
Soil Rating Polygons		 Streams and Canals
 0 - 25		Transportation
 25 - 50		 Rails
 50 - 100		 Interstate Highways
 100 - 150		 US Routes
 150 - 200		 Major Roads
 > 200		 Local Roads
 Not rated or not available		Background
Soil Rating Lines		 Aerial Photography
 0 - 25		
 25 - 50		
 50 - 100		
 100 - 150		
 150 - 200		
 > 200		
 Not rated or not available		
Soil Rating Points		
 0 - 25		
 25 - 50		
 50 - 100		
 100 - 150		
 150 - 200		
 > 200		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County, Virginia
Survey Area Data: Version 11, Dec 11, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 10, 2010—Jul 4, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Cumberland County, Virginia (VA049)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1B	Appling sandy loam, 2 to 7 percent slopes	>200	2.1	2.5%
8A	Chewacla and Monacan soils, 0 to 2 percent slopes, frequently flooded	>200	5.0	5.9%
16B	Enon-Helena complex, 2 to 7 percent slopes	>200	32.6	38.2%
16C	Enon-Helena complex, 7 to 15 percent slopes	>200	2.6	3.1%
21C	Helena sandy loam, 7 to 15 percent slopes	>200	0.1	0.1%
32B	Pointdexter-Wedowee complex, 2 to 7 percent slopes	99	0.6	0.7%
32C	Pointdexter-Wedowee complex, 7 to 15 percent slopes	99	23.3	27.3%
32D	Pointdexter-Wedowee complex, 15 to 25 percent slopes	99	18.9	22.1%
45B	Worsham loam, 0 to 4 percent slopes	>200	0.0	0.0%
Totals for Area of Interest			85.3	100.0%

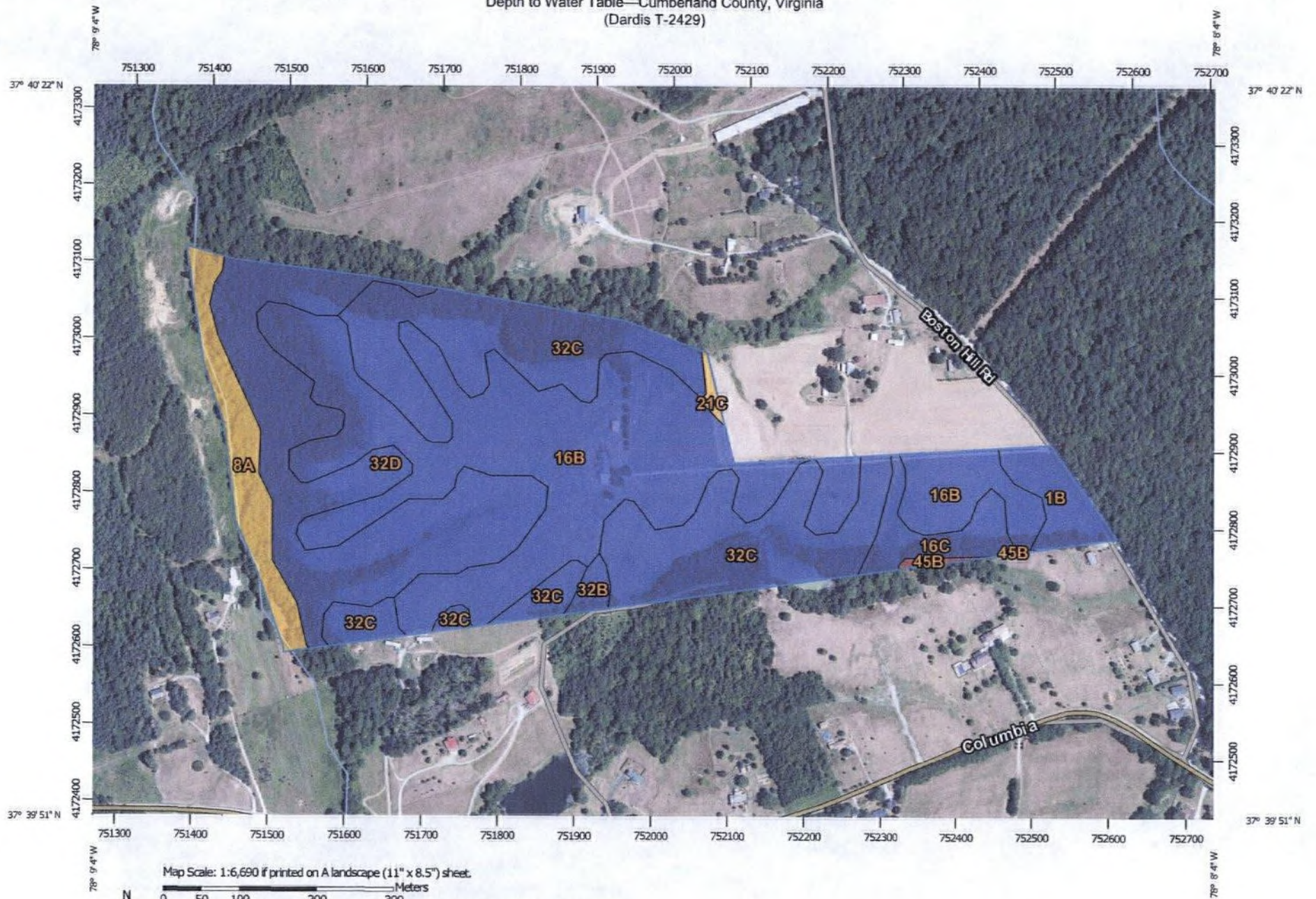
Description

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "> 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Depth to Water Table—Cumberland County, Virginia
(Dardis T-2429)



Map Scale: 1:6,690 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters


0 300 600 1200 1800 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Lines


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Points




-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200

 Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 11, Dec 11, 2013

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Depth to Water Table

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8A	Chewacla and Monacan soils, 0 to 2 percent slopes, frequently flooded	31	4.7	5.5%
16B	Enon-Helena complex, 2 to 7 percent slopes	>200	32.8	38.4%
16C	Enon-Helena complex, 7 to 15 percent slopes	>200	2.8	3.3%
21C	Helena sandy loam, 7 to 15 percent slopes	45	0.3	0.3%
32B	Poindexter-Wedowee complex, 2 to 7 percent slopes	>200	0.6	0.8%
32C	Poindexter-Wedowee complex, 7 to 15 percent slopes	>200	23.5	27.5%
32D	Poindexter-Wedowee complex, 15 to 25 percent slopes	>200	17.9	21.0%
45B	Worsham loam, 0 to 4 percent slopes	15	0.2	0.3%
Totals for Area of Interest			85.5	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component



DARDIS T-2429

Boston Hill Rd

4

41B

32C

16B

16B

16B

32C

32D

8A

1

16B

21C

1B

1B

1B

32C

16C

32C 32B

32C

32C



Columbia

NutriBlend

BIOSOLIDS LAND APPLICATION

Dardis
T-2429



DARDIS FARM
Tract 2429
FIELD DATA SHEET

Field	Total	Field Coordinates	
	Acres	Latitude	Longitude
1	50.40	37.668407	-78.144853
4	16.2	37.66982	-78.148755
2	66.6		

watershed code	JM70
Site Type	Agriculture
Tax ID	17-A-5A,5B,5C,5D,5E,5F,5G
Agricultural Practice:	See Nutrient Management Plan for Yearly crop rotation
USDA Soil info on depth to bedrock&water table when applicable in Nutrient Management Plan	
owner	HELEN C. DARDIS

